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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|-----------------------|------------------|
| 10/044,853 | 11/07/2001 | Kenneth G. Lang | 60,130-1120 01MRA0246 | 9810 |

26096 7590 10/04/2003

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EXAMINER

DRAPER, DEANN L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3616

DATE MAILED: 10/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,853

Applicant(s)

LANG ET AL.

Examiner

Deanna L. Draper

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 5 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Acknowledgements

The Information Disclosure Statement filed by the Applicant on March 24, 2003 is acknowledged.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "h2" has been used to designate both the height shown in Figure 3 and the height shown in Figure 4. In Figure 3, "h2" should be --h1—(see specification, page 5, paragraph 33). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 2 is objected to because of the following informalities: in line 2, "portions" should be --portion--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3616

Claim 3 recites that “the projections on the first portion are positioned to contact *each other* when the first and second portions are in the second alignment position” (italics added). This is confusing, and it is unclear how the projections on the first portion will contact “each other”. It seems that Claim 3 is similar to Claim 13 where the projection on the first portion is positioned to contact the projection on the second portion when the first and second portions are in the second alignment position. Clarification is required.

Claim 14 recites the limitation "the jounce bumper portions" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 4, 6, 7, 10 – 16 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Pierce et al. (US 5,921,532). Pierce discloses an air spring with internal support member, including a first support member/bead plate attached to a body of the vehicle (502 in Fig. 12), a second support member/retainer plate that moves relative to the first support member (506 in Fig. 12), at least one air spring coupled with the first and second support members (504 in Fig. 12), and a jounce bumper within the air spring having a first bumper portion relative to the first support member (508 in Fig. 12) and a second bumper portion supported to move with

Art Unit: 3616

the second support member (510 in Fig. 12). The jounce bumper portions each include a surface configuration that maintains a first minimal spacing between the support members when the first and second portions are in a first alignment position and maintains a second spacing between the support members when the first and second portions are in a second alignment position (Col. 11, line 58 – Col. 12, line 5). The bumper portions have a surface configurations/projections (514, 516 in Fig. 12) wherein the wedge-shaped projections extend towards one another in an axial direction and are circumferentially spaced about the bumper portions, and do not contact each other when the first and second portions are in the first alignment position (see Fig. 12), but contact each other in the second alignment position (Col. 11, line 63 – Col. 12, line 24; *when the upper and lower bumpers are in alignment, the air spring maintains a minimum predetermined height, and when they are out of vertical alignment, 506 “can move vertically a substantial distance relative to the top plate 502”; and end surfaces 514 and 516 are also referred to as “horizontal abutment surfaces”*). Each bumper portion also has a sloped surface wherein the sloped surfaces are in a generally parallel alignment when the bumper portions are in the first alignment position (see parallel sloped surfaces in Fig. 12, attached). Pierce also discloses an actuator that is operative to selectively move at least one of the jounce bumper portions into the first or second alignment position (512 in Fig. 12).

Claims 18 – 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Charles (US 5,308,104). Charles discloses a jounce bumper with a first portion having a first surface configuration (78 in Fig. 2) and a second portion having a second surface configuration (114 in Fig. 2) that cooperates with the first surface configuration so that a total thickness of the first

Art Unit: 3616

and second portions is selectively varied depending on the alignment between the first and second portions (Col. 4, lines 3 – 9). Charles also discloses a jounce bumper wherein the first surface configuration includes a plurality of projections (see 108 in Fig. 2) interdigitated with a plurality of recesses (110 in Fig. 2) and the second surface configuration includes a corresponding plurality of projections (112 in Fig. 2) interdigitated with the recesses, where the recesses on each portion are sized to receive the projections on the other portion. The portions are partially wedge shaped and include cooperating sloped surfaces (see 110, 118 in Fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pierce et al. Pierce discloses the invention as claimed above, including an air source operative to control a brake on the vehicle and providing a signal to the actuator that is indicative of a desired alignment of the bumper portions (556 in Fig. 14; Col. 12, line 66 – Col. 13, line 17). However, Pierce discloses an actuator that is pneumatically powered (see Fig. 14; Col. 12, line 66 – Col. 13, line 8), rather than hydraulically powered. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a hydraulically powered actuator, since the examiner takes Official Notice of the equivalence of hydraulically powered

Art Unit: 3616

and pneumatically powered actuators for their use in the vehicle suspension art and the selection of any of these known equivalents to a pneumatically powered actuator would be within the level of ordinary skill in the art.

Allowable Subject Matter

Claims 5 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Weitzenhof (US 5,009,401) discloses an air spring suspension system with dual path isolation. Gutman et al. (US 6,186,486) discloses a jounce bumper plate. Bono et al. (US 6,254,072) discloses a spring isolator and jounce bumper for a motor vehicle suspension. Maiwald et al. (US 5,597,172) discloses a sprayer suspension and steering. Griffin (US 6,485,008) discloses a jounce bumper. Pees et al. (US 4,527,781) discloses a pneumatic vehicle suspension unit with air sleeve guide. Pryor (US 4,555,096) discloses a pneumatic spring and strut assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deanna L. Draper whose telephone number is 703-306-5939. The examiner can normally be reached on Monday - Friday, 9:00 - 6:00.

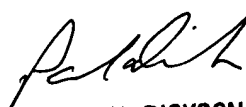
Art Unit: 3616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

DEANNA  PAPER
PATENT EXAMINER

dld

 10/1/03
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